REMARKS

Claims 1-11 are all the claims pending in the application. By this Amendment, Applicant adds claim 11.

Applicant thanks the Examiner for initialing the references listed on form PTO/SB/08 A & B submitted with the Information Disclosure Statement filed on August 28, 2003. However, the Examiner has not indicated receipt or consideration of the references listed on form PTO/SB/08 A & B submitted with the Information Disclosure Statement filed on October 14, 2003. Therefore, Applicant respectfully requests the Examiner to acknowledge the receipt of the Information Disclosure Statement filed on October 14, 2003 and initial and return a copy of the Form PTO/SB/08 A & B.

The Examiner found new grounds for rejecting claims 1-5 and new claims 6-10. In particular, claim 1-3 and 6-8 stand rejected under 35 U.S.C. § 102(b) and claims 4-5 and 9-10 stand rejected under 35 U.S.C. § 103(a). Applicant respectfully traverses these rejections in view of the following remarks.

I. Claim Rejections under 35 U.S.C. § 102(b)

Claims 1-3 and 6-8 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Williams, A.; MPOA: routing multiple protocols over ATM Switching (Digest No: 1997/334,), IEE Colloquium on, 19 Nov. 1997, Pages: 2/1-2/5 (hereinafter "Williams"). Applicant respectfully traverses this rejection and respectfully requests the Examiner to reconsider this rejection in view of the comments, which follow. Of these claims, only claims 1 and 6 are independent.

To be an "anticipation" rejection under 35 U.S.C. § 102, the reference must teach every

element and recitation of the Applicant's claims. Rejections under 35 U.S.C. § 102 are proper

only when the claimed subject matter is identically disclosed or described in the prior art. Thus,

the reference must clearly and unequivocally disclose every element and recitation of the

claimed invention.

Claim 1 recites a number of unique features not found in the cited reference. For

example, claim 1 recites:

> determining by an MPOA server which has received an address
> resolution request packet from an MPOA client whether or not said
> address resolution request packet is to be forwarded to another
> MPOA server or another MPOA client based on layer 3 packet
> filter information.

The Examiner asserts that claim 1 is directed to a method for transferring MPOA packets in an

ATM network and is anticipated by Williams. Applicant submits that the unique combination of

claim 1 including at least the claimed step of determining whether or not to forward an address

resolution request to another MPOA server or another MPOA client based on layer 3 packet

filter information is absent from the Williams reference. The Examiner alleges that Williams's

teaching of MPOA server distributing broadcast and multi-cast frames to the appropriate network

ports is equivalent to determining whether or not to forward an address resolution request, as set

forth in claim 1 (see page 3 of the Office Action). Applicant respectfully disagrees with the

Examiner.

An illustrative, non-limiting embodiment of the present invention discloses a method of

preventing the establishment of undesirable shortcut path (preventing security breaches) for

MPOA packets in ATM network. For example, when MPOA packets are forwarded on an ATM network via multiple servers (not in the shortcut), the MPOA server opens layer 3 filtering information and checks whether or not this MPOA packet is to be forwarded to the designated address and discards the undesired packages.

However, as explained in the illustrative, non-limiting embodiment of the present invention, sometimes a shortcut is desired for faster transmission between two MPOA clients. When a shortcut is to be established, a request packet for address resolution is sent to the server but a conventional request packet lacks layer 3 address information, thereby the server cannot determine whether the shortcut is an undesirable one. In the exemplary embodiment of the present invention, a layer 3 address filtering information is included with the request packet, e.g., it can be added as an extension to the request packet. As a result, the server can check whether the layer 3 address filtering information (e.g., source address and destination address) and determine whether this shortcut is undesirable (whether or not to establish this shortcut). This passage is provided by way of an example only and is not intended to limit the scope of the claims in any way.

Williams, just like the prior art described in Applicant's specification, teaches the conventional technique of routing MPOA packets over ATM. In particular, William teaches creating dedicated paths by MPOA client receiving IP source and destination addresses and querying the MPOA server using the IP destination address for the ATM destination address corresponding to this IP destination address (an address resolution request). The edge switch (e.g., the client) may need to make a call across the ATM fabric to the edge device that connects

to the destination IP user via MPOA servers (page 2/4, ¶¶ 3-5 and 7-8). The server will provide

the ATM destination address (page 2/4, ¶¶3 and 8).

William's MPOA client caches this ATM address and uses it for subsequent IP packets

directed to the same IP address. In short, Williams will set up a dedicated path by mapping the

destination addresses. Williams also teaches that the MPOA server is capable of broadcasting

and distributing multi-cast frames to the appropriate network ports (page 2/4, ¶¶5-6).

The Examiner appears to take the position that MPOA server determining ATM address

based on IP address and broadcasting multi-cast frames to the appropriate network ports is the

same as determining whether or not to forward the request to another server or client based on

layer 3 packet filter information (see page 3 of the Office Action). However, Williams teaches a

conventional technique of determining based on an IP destination address, which is forwarded to

the MPOA server for address resolution (page 2/4, ¶¶ 3 and 8) and it fails to teach or suggest

forwarding an address resolution request packet with a layer 3 filter information. That is,

Williams' MPOA server only receives IP destination address and not a layer 3 filter information.

As a result, Williams' MPOA server only maps the destination addresses. Williams' MPOA

server does not receive the source address to check whether the requested dedicated path is a

desired one.

Moreover, Williams clearly fails to teach determining whether or not to forward the

request for an ATM address. Williams only teaches a conventional technique of determining

where to forward inquiry based on IP address. Finally, the Examiner seems to equate address

resolution request packet with an IP frame (see page 3 of the Office Action). However,

Applicant respectfully notes that even Williams teaches that an edge switch receives a

conventional IP frame and looks at the IP destination address, and then "queries" the server using

the IP destination address. In short, Williams' conventional IP frame is not similar to an address

resolution request packet.

In short, Williams teachings are no different from the prior art discussed in Applicant's

Specification. Williams teaches sending an IP destination address to acquire the desired ATM

address and that based on the IP destination address, the edge switch will need to call across the

ATM fabric to the edge device that connects to the destination IP user. However, Williams fails

to teach or suggest determining whether or not to forward the inquiry for address resolution and

determining based on layer 3 packet filter information.

For at least these exemplary reasons, Applicant respectfully submits that independent

claim 1 is patentably distinguishable from Williams. Applicant therefore respectfully requests

the Examiner to reconsider and withdraw this rejection of independent claim 1. Also, Applicant

respectfully submits that claims 2 and 3 are allowable at least by virtue of their dependency on

claim 1.

In addition, with respect to claim 2, Applicant respectfully submits that Williams teaches

forwarding to the alleged MPOA server (page 3 of the Office Action) IP destination address only

for address resolution as explained in detail on page 2/4, ¶¶ 3-4 and as further evidenced by page

2, ¶ 8, where Williams only talks about an "IP address" and not addresses. Applicant

respectfully points out that the reference must clearly and unequivocally disclose each and every

element in the claim. Williams does not disclose, even implicitly as alleged by the Examiner, the

source layer 3 address being added as an extension to the MPOA address resolution request packet. For at least this additional exemplary reason, Applicant respectfully submits that claim 2 is patentably distinguishable from Williams.

Next, Applicant respectfully traverses this rejection with respect to independent claim 6. Claim 6 recites a number of unique features not found in the reference cited by Examiner. For example, claim 6 recites determining based on layer 3 packet filter information, whether or not the address resolution request packet is to be forwarded. This exemplary recitation is similar to the exemplary recitation argued above with respect to claim 1. Therefore, arguments presented with respect to claim 1 are respectfully submitted to apply with equal force here.

Moreover, Applicant respectfully points out that if as alleged by the Examiner MPOA server or Route Server is similar to the server as set forth in claim 1, then Williams fails to disclose any section or portion of the server. It is respectfully pointed out that William's MPOA server is a black box. Williams is concerned with theoretical workings of the system and as such only talks about the interrelationship and functionality of the Route Server but fails to disclose a single component of the server. Surely, Williams fails to disclose clearly and unequivocally a number of requirements of claim 6. Therefore, for at least these exemplary reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claim 6 and its dependent claims 7 and 8.

II. Claim Rejections under 35 U.S.C. § 103(a)

Claims 4, 5, 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Williams in view of U.S. Patent No. 5,467,349 A to Huey et al. (hereinafter "Huey"). Applicant

respectfully traverses this rejection with respect to the dependent upon claim 1, claims 4 and 5

and dependent upon claim 6, claims 9 and 10. Applicant has already demonstrated that Williams

does not meet all the requirements of independent claims 1 and 6. Huey is relied upon only for

its teaching of its error processing and filtering. Huey has nothing to do with MPOA packets.

For example, Huey does not disclose determining by an MPOA server whether or not the address

resolution request packet is to be forwarded, let alone based on layer 3 packet filter information,

as recited in claims 1 and 6.

Clearly, Huey does not compensate for the above-identified deficiencies of Williams.

Together, the combined teachings of these references would not have (and could not have) led

the artisan of ordinary skill to have achieved the subject matter of claims 1 and 6. Since claims

4-5 and 9-10 dependent upon claims 1 and 6, respectively, they may be patentable at least by

virtue of their dependency.

III. New Claim

In order to provide more varied protection, Applicant adds claim 11. Claim 11 is

patentable over the prior art references cited by the Examiner at least because of its recitation of

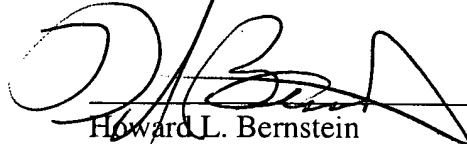determination step.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly invited to contact the undersigned attorney at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain

the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to

be charged to Deposit Account No. 19-4880.

Respectfully submitted,

Howard L. Bernstein
Registration No. 25,665

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

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